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Valvular Heart Disease

THE IMPACT OF PRE-PROCEDURAL SERUM ALBUMIN LEVELS ON OUTCOME OF PATIENTS UNDERGOING TRANSCATHETER AORTIC VALVE REPLACEMENT

Poster Contributions
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Background: Risk assessment for transcatheter aortic valve replacement (TAVR) patients usually includes surgical scores, which do not accurately predict mortality risk. Our goal was to assess the impact of serum albumin levels on outcome of severe aortic stenosis (AS) patients undergoing TAVR.

Methods: Patients undergoing TAVR were categorized by low and normal pre-procedural serum albumin (3.5g/dL cutoff). Mortality rates at 30-day and 1-year follow-up were compared between the groups, and a Cox proportional hazard model was generated to assess the independent effect of low albumin at 1-year follow-up.

Results: Among 567 consecutive patients undergoing TAVR, 476 (84%) had documented pre-procedural serum albumin, with 3.5g/dL being the median value. Baseline and procedural characteristics, including age, gender and STS score and transapical approach, were similar among the groups. Prevalence of ejection fraction <40% was higher in patients with low albumin (29% vs. 20%, p=0.02). Despite the similar rates of peri-procedural complications, patients presenting with low albumin had higher mortality at 30-day (12% vs. 6%, p=0.01) and 1-year (29% vs. 19%, p=0.02) follow-up. In addition, low albumin was independently associated to one-year mortality (adjusted HR=1.56, p=0.04).

Conclusion: Pre-procedural serum albumin level is independently associated with mortality in patients undergoing TAVR. Patients with severe AS and low albumin rates should undergo careful evaluation prior and post TAVR.